

REMARKS/ARGUMENTS

Reconsideration is requested, as is a one-month extension of time for a Small Entity.

Claims 1, 2, and 5-7 have been rejected under §103(a) as unpatentable over Reference V in view of Reference X and Reeves (US Patent 4,447,866).

As has been noted by commentators such as Bruce A. Lehman, former Commissioner of Patents, this type of Internet Information is inherently unreliable:

"Thus while certain information could be posted on a forum, with reliable documentation of the date of that disclosure and its contents, it would not be certain that the disclosure itself is technically accurate and usable as prior art. Informally created documents, such as postings on a forum, are not typically subjected to any form of peer review or content screening. The lack of quality control could therefore complicate evaluation of information contained in these electronic documents which, in turn, could affect patentability, particularly in the context of litigation." Intellectual Property and the NII, 164-165 (1995), attached herewith. Also, there is no assurance that chat room postings are accessible to the relevant public. Northern Telecom v. Datapoint 908 F. 2d 931,937 (Fed. Cir. 1990).

Applicant however respectfully notes the following:

Reference V constitutes nothing more than a press release of Triode Electronics which (at ¶1, Line 4) makes reference to "outboard amplification," not amplification internal to a computer or any circuit board, motherboard, sound board or the like. More

particularly, the author of reference V, a so-called ("Jeff S"), simply makes the statement that "It might be nice to take the audio from the line outputs and use outboard amplification and speakers. Any suggestions on the amps?" In other words, the author of reference V, in the context of a news group, simply comments that it might be beneficial to take the audio output of a MAC computer and use it as an input to a conventional, external amplification system. Further, "Jeff S" does not even know what the appropriate power level would be if such an "outboard amplification" could be accomplished. In other words, the suggestion of reference V is solely that of a connection (if possible) of an external amplifier and speakers to the output of a sound card of a MAC computer.

Reference V also includes a comment to the effect that:

"Some folks in Hong Kong are actually making new tube amps made to be used with computer sound cards, but how good they are and how much do they cost, I don't know." Said remark of Jeff S does not indicate whether the tube amplifiers purportedly being made by someone in Hong Kong are internal or whether the sound card or mother board associated tubes are simply external outboard tube amplifiers which have been adapted for use with the output of computer soundcards. Given the content of all that proceeds in the language of Reference V, there is no reason to think that Jeff S is referring to anything other than outboard amplification. Jeff S also states that he does not know how functional the Hong Kong system, whatever it may be, is. In addition, no language within reference V exists which could be considered enabling to actually yield the Applicant's system. For example, there is no teaching whatsoever of a DC-to-DC voltage converter for supplying high voltage to a vacuum tube. As is clear from the specification of the Applicant, absent this teaching, the information contained within Reference V cannot be deemed enabling to one of ordinary skill in the art.

Reference X is simply a one-line quote from a chat room which reads as follows:

"Any truth to the rumor that Audio Research is considering a vacuum tube sound card? That could be intriguing..."

As such, Reference X, by its own language, indicates that the information is a "rumor" and does not indicate whether Audio Research or anyone else has successfully created and tested a vacuum tube sound card. And as in the case with Reference V, it contains no enablement with respect to how such a result might be accomplished, including no reference whatever to a DC-to-DC voltage converter to supply voltage at a level necessary enable the tube to function. As such, References V and X, however combined, are not enabling to teach the Applicant's invention, nor do they indicate that the Applicant's invention, or any general equivalent thereof, has actually ever been effected in the art. Applicant has researched the business of Audio Research online and found that it has never produced or sold a vacuum tube card. Thus, the answer to the question of Reference X is "no."

With respect to the reference to Reeves, said reference teaches the state-of-the-art as existed in 1984, of DC-to-DC converters and, as such, no referral is made to a converter to provide a high voltage, i.e., one in a range of 50 to 1000 volts DC, to a vacuum tube, and certainly Reeves makes no reference to the provision of such voltage for the use on a tube card, sound card, or a sound card embedded within a motherboard of a personal computer. As such, Reeves contain no teaching of combinability of a DC-to-DC converter with the other elements of Applicant's system, as claimed. The rejection of record of Claims 1, 2, and 5-7 under 35 U.S.C. 103(a) therefore cannot stand.

Claims 2 and 7 have been rejected in light of the Examiner's Official Notice that, "it is was well known in the art of vacuum tube circuit design at the time that the present invention was made to utilize available voltage sources for powering the cathode heaters of vacuum tubes, selecting the tube type according to the voltage levels that are available." However, the Examiner, in taking such Official Notice, does not consider the implications of diverting existing power sources within a computer to provide an input to a high voltage device such as a vacuum tube, i.e., the need for a DC/DC converter to provide voltage input to the tube which is appropriately isolated from other functions and power requirements of the computer. Claims 2 and 7 also depend from allowable higher order claims.

Claim 6 is allowable by reason of its dependence from Claim 5 which is allowable for the reasons set forth above.

Claims 3, 4, and 8-10 have been rejected under 35 U.S.C. 103(a) as unpatentable over reference W in view of Reference X and Reeves. The teaching of Reeves however does not include any teaching or combinability with respect to a DC-to-DC with any element, or interface of elements, encompassed within Applicant's system. Also, as above noted, Reference X contains no teaching regarding a vacuum tube card or motherboard.

Reference W does not teach use of a soundcard but, rather that of using a pre-amplification box, known as a Pod, as an input to a guitar soundcard. In other words, reference W simply teaches the use of an external/outboard pre-amplifier for a soundcard. As reference W notes "there are a ton of them out there." Reference W, as with reference V, addresses the use of an external device to augment the function of the

soundcard. As such, neither of said references teaches, nor otherwise suggests, the integration of tubes, contained within an outboard amplifier, into a sound card itself.

In addition, Applicant's invention occurred prior to the effective date of Reference W, as can be confirmed, if necessary, by a declaration under 37 C.F.R. 1.131.

Further, Reference W, and all of the Internet references, can only be deemed effective as of the present. "The policy of the Patent and Trademark Office ("PTO") is that the effective publication date of a magazine is the date it reaches an addressee, not the date it was placed in the mail. *MPEP* § 706.02(a) (8<sup>th</sup> ed. Rev. 1 Feb. 2003). Similarly, when people receive information on their computers in the form of an e-mail, an instant message, a chat room message, or by simply calling up a web page, it is analogous to receiving a magazine in the mail, i.e., the effective publication date is the date the computer user accesses the information, not the date it was posted to the screen. Therefore, in regard to a hacker or a web site owner who attempts to falsify a publication date of a general posting, the hacker or owner has less control over the verification date since it is the visitors or recipients who give effect to the publication date." 51 Fla. L. Rev. 229 (1999).


With regard to the rejection of Claims 4 and 10, per ¶10 of the Official Action, the Examiner's Official Notice of the state-of-the-art of vacuum tube circuit design is not applicable to the novelty of Claims 4 and 10 for the reasons set forth above, with respect to the rejection of Claims 2 and 7 (¶6 of the Official Action) discussed above.

With respect to Claim 9, this claim is allowable by reason of its dependence from allowable independent Claim 8.

Applicant has made corrections to the drawings and the specification responsive to ¶s 1 and 2 of the Official Action.

In view of the above, all objections and rejections of record are believed to have been satisfactorily responded to and, as such, the early allowance of this application is indicated.

Respectfully submitted,  
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Enclosure:

Article "Intellectual Property and the NII." (1995)

**INTELLECTUAL PROPERTY  
AND THE  
NATIONAL INFORMATION  
INFRASTRUCTURE**

**THE REPORT OF THE WORKING GROUP ON  
INTELLECTUAL PROPERTY RIGHTS**

**BRUCE A. LEHMAN**  
*Assistant Secretary of Commerce and  
Commissioner of Patents and Trademarks*  
**CHAIR**

**INFORMATION INFRASTRUCTURE TASK FORCE**

**RONALD H. BROWN**  
*Secretary of Commerce*  
**CHAIR**

**SEPTEMBER 1995**

patent as a whole is unenforceable.<sup>476</sup> Every claim in a patent, however, is presumed valid.<sup>477</sup> Thus, in district court, the party challenging patent validity must demonstrate through clear and convincing evidence that the patent fails to satisfy one or more of the statutory criteria of patentability (e.g., novelty, utility, nonobviousness), or that the application is defective because it has an inadequate disclosure.<sup>478</sup>

### 1. PATENTABILITY DETERMINATIONS

The NII will have a tremendous impact on the flow of information. As new sources of information are made available and old sources are made more accessible, the accumulated body of knowledge available for use in patentability determinations will expand. This means that more information will be available to influence decisions on the patentability of an invention, whether in the context of

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considered by a court. The party may also show that the claims are defective in view of Section 112 because they are broader than what is actually supported by the disclosure.

<sup>476</sup> A party can also preclude the enforcement of a patent without specifically addressing the validity of the patent. This can occur, for example, if the patent owner engaged in "inequitable conduct" before the PTO (e.g., the inventor withheld material prior art from the patent office or made other misrepresentations intended to mislead the PTO), or misused its patent rights (e.g., in an antitrust context). In both instances, the patent will be unenforceable against any and all infringers, even if the patent satisfies all patentability requirements.

<sup>477</sup> See 35 U.S.C. § 282 (1988):

A patent shall be presumed valid. Each claim of a patent (whether independent, dependent, or multiple dependent form) shall be presumed valid independently of the validity of other claims; dependent or multiple dependent claims shall be presumed valid even though dependent upon an invalid claim. The burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting such invalidity.

<sup>478</sup> A party can also challenge the validity of a patent in a reexamination proceeding before the Patent and Trademark Office. In such a proceeding, however, the basis for challenge is limited to novelty and obviousness in view of only certain types of prior art, namely, printed publications and patents.

*www.uspto.gov/web/offices/com/doc/ipnii/ipnii.pdf*



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the patent examination process or during challenges to patent validity through litigation in the Federal courts.<sup>479</sup> Thus, the most significant impact that the NII will have on the patent system will be in relation to issues that are affected by the degree of availability of "prior art."

Over the past twenty years, access to sources of information -- particularly patents and printed publications -- has been vastly improved through the development and use of on-line database services. These services document the existence and content of patents and printed publications, and in some instances, provide access to the complete text and electronic images of such documents. It is important to recognize, however, that the information that can be retrieved through these services invariably exists as an original, paper document disseminated through traditional publication channels (e.g., technical journals or publications, domestic and foreign patent documents).

The NII will dramatically change the way information is prepared and disseminated. It will improve the number, diversity, accessibility and quality of traditional on-line services. It will also foster creation of new forms of "electronic publications" that are different in character from traditional paper-based publications. Examples of such electronic publications include electronic versions of traditional paper-based publications that supplement or reorganize presentation of the content of the paper-based publication; informally prepared documents such as a posting of technical or other information on a particular topic-driven forum; and formally designed and developed

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<sup>479</sup> Prior art plays a critical role in patentability determinations. It serves to define the state of the art at the time a patent application is filed (e.g., it establishes the level of ordinary skill in the art). Specific items of prior art serve as the basis of denying patentability to a particularly claimed invention, either singularly in the context of novelty or through combination in the context of obviousness. Because of this, it is imperative that all sources of information that relate to an invention be integrated into patentability determinations.

electronic publications that are not printed on paper, but are disseminated exclusively through an electronic forum.

Electronic publications such as these will supplement the wealth of publicly accessible information that is used in patentability determinations. However, these new types of electronically disseminated documents are different in character from traditionally printed and indexed patents and publications, and as such, could raise questions when used as prior art in a patentability determination, either before the PTO or during litigation. For example, the information contained in electronically-disseminated documents may not be printed originally on paper, and as such, there may be no tangible evidence regarding the date the information was first publicly disclosed or as to the contents of the document as disclosed on that date. There are no uniform guidelines or industry standards presently that govern the memorialization of either the contents or the date of first public disclosure of such documents. A second problem is that the degree of distribution of or public accessibility to electronic documents is not presently measured and may prove unmeasurable. Limited availability of a document can render that document unusable as a source of information as prior art.<sup>480</sup> Both issues, however, are key factors in determining whether a document is in the prior art.

A second category of concerns relates to the technical accuracy of electronically disseminated documents. To be a usable and reliable prior art document, the contents of the document must be technically accurate and informative. The types of documents that are disseminated electronically today, however, vary tremendously as to their content and accuracy. Thus, while certain information could be posted on a forum, with a reliable documentation of the date of that disclosure and its contents, it would not be certain that

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<sup>480</sup> See *In re Hall*, 781 F.2d 897, 899 (Fed. Cir. 1986) (publicly catalogued doctoral dissertation in publicly accessible library properly considered prior art document).

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the disclosure itself is technically accurate and usable as prior art. Informally created documents, such as postings on a forum, are not typically subjected to any form of peer review or content screening. The lack of quality control could therefore complicate evaluation of information contained in these electronic documents, which, in turn, could affect patentability, particularly in the context of litigation.

## 2. INFRINGEMENT DETERMINATIONS

As noted in other sections of this Report, some questions exist regarding whether or how copyright owners will be able to effectively enforce their rights in their works on the NII. The issues related to the enforcement of copyrights on the NII do not have an analogue with regard to patent protection. This is because each patent provides a precise definition of the nature of activities that will infringe the patent owner's rights. And while some have raised concerns over the ability of patent owners to prove infringement where the infringing activities were facilitated by or conducted on the NII, these concerns do not appear to be well founded.

Consider a patent claim covering a new data compression process used for communicating information over the NII. To infringe the patent owner's rights, one would have to perform each of the acts specifically outlined in the process claim. To prove infringement, the patent owner could rely on any evidence that the accused party used the process. This could be done by showing that the accused infringer developed and distributed a software program that, when used by a third party, would infringe the process claim (e.g., the software would require the third party to follow the steps outlined in the process claim and thus lead to infringement of that claim). Alternatively, the patent owner could show that data was distributed over the NII in the compressed format, and then establish the source of the data. Considered fully, it does not appear to be an insurmountable problem for the patent owner to identify